						T			T		
HT AFF	SYMBOL	DESCRIPTION	HT AFF	SYMBOL	DESCRIPTION	HT AFF	SYMBOL	DESCRIPTION	HT AFF	SYMBOL	DESCRIPTION
		LIGHTING			<u>EQUIPMENT</u>					├ 	HEAT DETECTOR (TYPE & TEMP DENOTED)
NOTED	HC D	SURFACE LIGHT (TYPE DENOTED)		- P -	UTILITY SERVICE POWER POLE (SITE)		UT	UNDERGROUND TELEPHONE		R/F135 R/F135	LINEAR HEAT DETECTOR
	⊘ R	RECESSED LIGHT (TYPE DENOTED)	AS NOTED	1	SPECIAL RECEPT. OR CONN. (SEE SCHEDULE)		UCOM	UNDERGROUND COMMUNICATIONS		② _p	DUCT SMOKE DETECTOR (TYPE DENOTED)
	O G	SURFACE LIGHT (TYPE DENOTED)		2—●	SPECIAL CONNECTION (SEE SCHEDULE)		UTV	UNDERGROUND CABLE TELEVISION (CATV OR C	CTV) 47"	H o	REMOTE TEST/STATUS STATION
	H	RECESSED LIGHT (TYPE DENOTED)	AS NOTED	Θ Φ	JUNCTION BOX		UFIBR	UNDERGROUND FIBER OPTIC		H UV/IR UV/IR	FLAME DETECTOR (TYPE DENOTED)
	ST1	STRIP LIGHT (TYPE DENOTED)		Î	AUTOMATIC DOOR OPERATOR PUSHBUTTON		UCP	UNDER CARPET FLAT POWER CABLE		UV/IR UV/IR	GAS DETECTOR (TYPE DENOTED)
NOTED	S1	TRACK AND TRACK LIGHT (TYPES DENOTED)	78"**		CIRCUIT BREAKER PANEL		UCT	UNDER CARPET FLAT TELEPHONE CABLE	47"	HO CO CO HEP	F.A. PULLSTATION
92"**	EM	EMERGENCY BATTERY LIGHT (TYPE DENOTED)		T1	TRANSFORMER (TYPE DENOTED)		UCD	UNDER CARPET FLAT DATA CABLE		Z	F.A. ZONE ADDRESSABLE MODULE
		EMERGENCY LIGHT - DOUBLE REMOTE HEAD		25 KVA	GENERATOR (KVA DENOTED)		OHE	OVERHEAD ELECTRIC		I	F.A. INDIVIDUAL ADDRESSABLE MODULE
		EMERGENCY LIGHT - TRIPLE REMOTE HEAD		() SF-1	MOTOR (SEE SCHEDULE)		——ОНТ ——	OVERHEAD TELEPHONE		H ⊙ ≠	F.A. DOOR HOLDER
12"*	H⊗E ⊗E	EXIT SIGN (TYPE DENOTED)		₩	UTILITY METER			BRANCH CIRCUIT HOME RUN		\ <u></u>	F.A. DOOR CLOSER
NOTED		LIGHT FIXTURE ON (EM) LIFE SAFETY BRANCH			FIRE ALARM		00	FLEXIBLE CONDUIT OR FIXTURE WHIP		R	FIRE ALARM SHUT DOWN RELAY
NOTED		LIGHT FIXTURE ON (EM) CRITICAL BRANCH	92"**	HEM	FIRE ALARM HORN		PJ	UNDERFLOOR RACEWAY SYSTEM		SS	SPRINKLER FLOW SWITCH
	HO 1777	LIGHT FIXTURE ON EMERGENCY CIRCUIT	92"**	- ∳ - H E	FIRE ALARM HORN W/STROBE (CANDELAS)			CABLE TRAY (TYPE DENOTED)		Ş 	SPRINKLER VALVE TAMPER SWITCH
NOTED	_	LIGHT FIXTURE WITH EMERGENCY BALLAST	92"**	HED	FIRE ALARM BELL		E	CONDUIT SLEEVE (SIZE DENOTED)		5₩ O ₇ 5₩	SPRINKLER LEVEL SWITCH
			92"**	- -	FIRE ALARM BELL W/STROBE (CANDELAS)			COMMUNICATION		Ş¥Ş Q Ş₩Ş	SPRINKLER PRESSURE SWITCH
		LIGHTING CONTROL	92"**	HE=	FIRE ALARM CHIME	16"	M	TELEPHONE OUTLET (TYPE DENOTED)		(SPRINKLER TEMPERATURE SWITCH
47"	I (/)	SINGLE POLE SW.	92"**	- -	FIRE ALARM CHIME W/STROBE (CANDELAS)	47"***	W W	WALL TELEPHONE OUTLET (TYPE DENOTED)	18"	⊱♥⊰ FM _{EVAC}	VOICE EVAC MICROPHONE OUTLET
47"	10 7	2 POLE SINGLE THROW SW.	92"**	- ↓ - - ↓ - - [] 110∞1	FIRE ALARM STROBE (CANDELAS)	16"	×	COMMUNICATION OUTLET (TYPE DENOTED)			KEY REPOSITORY (KNOX BOX)
47"	107	3-WAY SW.		⊬Ē 110∞d -人	FIRE ALARM SPEAKER W/STROBE (CANDELAS)	84"	H □ O	BELL	AS NOTED	HSI - - - - - - - - - - - - - - - - - - -	SCRAMBLE STROBE STACK LIGHT
47"	107	4-WAY SW.	92"** 72"**	FA ANNUN	FIRE ALARM REMOTE ANNUNCIATOR	84"	HIX	BUZZER			F.A. SPEAKER (WALL OR CEILING MT.)
47 47"	1 67 K	KEYED SW.	72"**	FA ANNUN	NAC POWER SUPPLY	84"	`		84" 8"****	FA S	SELF-CONTAINED SMOKE ALARM (CO DENOTES C
47"	1 67 0	DIMMER SWITCH	72"**	NACPS	VOICE EVACUATION PANEL	04	⊢⑤ A-2 E-1	SPEAKER (WALL OR CEILING MT.). LETTER 'A' IS TYPE OF SPEAKER, AND NUMBER '1' IS SPEAKER	{		SELF-CONTAINED AV SMOKE ALARM
47"	1 67 0s	OCCUPANCY SENSOR SWITCH	72"**	EVAC	AIR SAMPLING CONTROL PANEL			ZONE. REFER TO SPEC FOR SPEAKER TYPES.	8"**** 8"***	HÓØ ÓØ HOØØ OØØ	SELF-CONTAINED AV SMORE ALARM
41	Os IR	OCCUPANCY SENSOR - TYPE DENOTED	72"**	ASFP	FIRE ALARM TRANSPONDER	47"	₩	VOLUME CONTROL	0		BEAM TYPE SMOKE DETECTORS
		LIGHT LEVEL SENSOR - TYPE DENOTED		FTR				MICROPHONE OUTLET	47"***	BTBR	ABORT SWITCH
NOTED	(L _S) A (PC)	PHOTOCELL	72"** 72"**	FSCP	FIRE SUPPRESSION CONTROL PANEL HVAC PRESSURIZATION PANEL	16"	⊦® X	WIRELESS ACCESS POINT (WAP)	47	H <u>E</u>) ≥	END OF LINE RESISTOR
NOTED	<u>ru</u>			HVA			H	MOTOR CONTROL		→ ELR	SECURITY
4011		RECEPTACLES SINGLE RECEPT.	72"**	TCVR	FIRE ALARM TRANSCEIVER PANEL			DAMPER MOTOR		EO	ELECTRIC STRIKE
16"	Ю		72"**	FARP	FIRE ALARM RELAY PANEL	470				ES	MAGNETIC LOCK
16"	 	DUPLEX RECEPT.	8"***	HO _p O _p	SMOKE DETECTOR (TYPE & CO DENOTED) GAS DETECTOR (TYPE DENOTED)	47"		MANUAL MTR. STR. (W/OVERLOADS)		ML .	COMBINATION LOCK
16"	₩	QUADPLEX RECEPT.		HO 00	,	72"**		MAG. MOTOR STARTER OR CONTACTOR		H©	
16"	Ħ	SPLIT DUPLEX RECEPT.		. 0	GENERAL ELECTRICAL	72"**	⊠ ₁	COMB. MOTOR STARTER (NON-FUSED)		DC	DOOR CONTACTS
16"	H	ISOLATED GROUND RECEPT (DUPLEX SHOWN)		Ħ	LIGHT SYMBOL INDICATES EXISTING	72"**	⊠h —	COMB. MOTOR STARTER (FUSED)	4=0444	MS	BALANCED MAGNETIC SWITCH
16"	\mapsto	RECEPT ON EMERGENCY CKT (DUPLEX SHOWN)		Ħ	DASHED SYMBOL INDICATES REMOVED	72"**		SAFETY DISC. SW. (NON-FUSED)	47"***	HCR	CARD READER
16"	⊭	240 VOLT RECEPT.		#	KEYED NOTE (SEE SCHEDULE)	72"**		SAFETY DISC. SW. (FUSED)	47"***	H ∷ _{IR}	KEYPAD
*****	 	DUPLEX RECEPT MTD ABOVE COUNTER		#	DEMOLITION NOTE (SEE SCHEDULE)	72"**		ENCLOSED CIRCUIT BREAKER		HS14 S14	ALARM SIREN
	#	DUPLEX RECEPT MTD IN MILLWORK		##	REVISION TAG	47"	HT	THERMOSTAT - LOW VOLTAGE		ACE	ACCESS CONTROL ENCLOSURE
36"	⊨ ⊕	DUPLEX RECEPT C/W WET LOCATION COVERPLAT	Έ		WIRING	47"	H	THERMOSTAT - LINE VOLTAGE		H	CCTV CAMERA IN RECESSED DOME
36"	Ħ	DUPLEX RECEPT C/W INTEGRAL GFI			CONDUIT CONCEALED IN WALL OR OVERHEAD			ELECTRICAL HEATER	144"*	HMD →	MOTION DETECTOR (TYPE DENOTED)
	₩	DUPLEX RECEPT NEMA 5-20R CONFIG		/	CONDUIT CONCEALED BELOW FLOOR	PER SCHED		BASEBOARD HEATER (TYPE DENOTED)	72"**	IDSCP	INTRUSION DETECTION SYSTEM CONTROL PANEL
					CONDUIT EXPOSED	PER SCHED	→u HZ	WALL HEATER (TYPE DENOTED)	72"**	IDSCP IND	INTRUSION DETECTION SYSTEM CONTROL PANEL
				—— SR ——	SURFACE RACEWAY	PER SCHED		HAND OR HAIR DRYER (TYPE DENOTED)			INDEPENDENT
					CONDUIT TRANSITION UP	PER SCHED	_ ^√- ►	UNIT HEATER (TYPE DENOTED)	AS NOTED	C1	CCTV CAMERA. C1 REPRESENTS TYPE REFER TO
					CONDUIT TRANSITION DOWN				AS NOTED		CCTV CAMERA WITH PAN/TILT DRIVE
				\longrightarrow	CONDUIT STUBBED OUT					RTE	REQUEST TO EXIT
				LV	LOW VOLTAGE POWER WIRING						
				EX	EXISTING CONDUIT						
				UE	UNDERGROUND ELECTRICAL						

C/W COMPLETE WITH

SPECIFIC CODE NOTES

A. PENETRATIONS IN WALLS REQUIRING PROTECTED OPENINGS MUST BE FIRESTOPPED

2. OPENINGS FOR STEEL ELECTRICAL BOXES NOT EXCEEDING 100cm² ARE

3. OUTLET BOXES ON OPPOSITE SIDES OF WALLS OR PARTITIONS MUST BE

B. LIGHT FIXTURES AND OTHER APPARATUS INSTALLED IN AN ACOUSTICAL CEILING GRID

C. RECESSED LIGHTING FIXTURES INSTALLED IN FIRE RATED CEILING ASSEMBLIES SHALL

BE FIRE RATED FIXTURES BEARING THE ULC FIRE RATED LABEL. FIXTURES SHALL BE

INSTALLED IN ACCORDANCE WITH THE ULC FIRE RESISTANCE DIRECTORY, AND SHALL INCLUDE A FIRE RATED ENCLOSURE INSTALLED OVER THE FIXTURE THAT MEETS THE

SEPARATED BY A HORIZONTAL DISTANCE OF 155cm.

REQUIREMENTS OF THE ULC FIRE RESISTANCE DIRECTORY.

1. CONDUITS MAY PENETRATE WALLS OR PARTITIONS, PROVIDED THEY ARE FIRE-STOPPED.

PERMITTED PROVIDED OPENINGS DO NOT AGGREGATE MORE THAN 645cm² FOR

FIRE PROTECTION REQUIREMENTS

WITH AN APPROVED MATERIAL.

ANY 9.3m² OF WALL OR PARTITION.

SHALL BE INDEPENDENTLY SUPPORTED.

ELECTRICAL DRAWINGS

SYMBOLS & ABBREVIATIONS

E0.1 ELECTRICAL SYMBOLS AND ABBREVIATIONS

E1.1 ELECTRICAL SITE PLAN - DEMOLITION

E1.2 ELECTRICAL SITE PLAN - RENOVATION

DEMOLITION PLANS

EDL2.0 BASEMENT DEMOLITION - LIGHTING PLAN EDL2.1 LEVEL 1 DEMOLITION - LIGHTING PLAN

EDL2.2 LEVEL 2 DEMOLITION - LIGHTING PLAN EDP2.0 BASEMENT DEMOLITION - POWER & SYSTEMS PLAN

EDP2.1 LEVEL 1 DEMOLITION - POWER & SYSTEMS PLAN EDP2.2 LEVEL 2 DEMOLITION - POWER & SYSTEMS PLAN

LIGHTING PLANS

EL2.0 BASEMENT RENOVATION - LIGHTING PLAN

EL2.1 LEVEL 1 RENOVATION - LIGHTING PLAN EL2.2 LEVEL 2 RENOVATION - LIGHTING PLAN

POWER PLANS

EP2.0 BASEMENT RENOVATION - POWER PLAN

EP2.1 LEVEL 1 RENOVATION - POWER PLAN EP2.2 LEVEL 2 RENOVATION - POWER PLAN

SYSTEM PLANS ES2.0 BASEMENT RENOVATION - SYSTEMS PLAN

ES2.1 LEVEL 1 RENOVATION - SYSTEMS PLAN ES2.2 LEVEL 2 RENOVATION - SYSTEMS PLAN

FIRE ALARM PLANS EF2.0 BASEMENT RENOVATION - FIRE ALARM PLAN

EF2.1 LEVEL 1 RENOVATION - FIRE ALARM PLAN EF2.2 LEVEL 2 RENOVATION - FIRE ALARM PLAN

COMBINED ELECTRICAL

EC1.1 ARENA ELECTRICAL PLAN - DEMOLITION EC1.2 ARENA ELECTRICAL PLAN - RENOVATION

DETAILS

E4.1 ELECTRICAL DETAILS

DIAGRAMS

E5.1 ELECTRICAL SINGLE LINE DIAGRAM - EXISTING

E5.2 ELECTRICAL SINGLE LINE DIAGRAM - RENO 1 OF 2 ELECTRICAL SINGLE LINE DIAGRAM - RENO 2 OF 2

E5.4 FIRE ALARM RISER E5.5 SYSTEMS RISER DIAGRAM

SCHEDULES

E6.1 ELECTRICAL SCHEDULES

E6.2 ELECTRICAL SCHEDULES ELECTRICAL SCHEDULES

E6.4 ELECTRICAL SCHEDULES

E6.5 ELECTRICAL SCHEDULES

- THE GENERAL NOTES AS DESCRIBED HEREIN, APPLY TO ALL DRAWINGS IN THIS PACKAGE WHERE APPLICABLE.
- PENETRATIONS IN WALLS OR SEPERATIONS, REQUIRING PROTECTED OPENINGS SHALL BE FIRESTOPPED WITH AN APPROVED MATERIAL.
- EXPOSED WIRING SHALL NOT BE PERMITTED. WIRING SHALL BE RECESSED IN WALL, OR WHERE WALLS ARE NOT ACCESSIBLE DUE TO WALL CONSTRUCTION (CONCRETE BLOCK, CONCRETE, BRICK, ETC), PROVIDE CONDUIT AS REQUIRED TO CONCEAL SAME.
- REFER TO ARCHITECTURAL FLOOR PLANS, ELEVATIONS AND DETAILS, INCLUDING MILLWORK DETAILS AND SHOP DRAWINGS FOR COORDINATION OF ELECTRICAL DEVICE LOCATIONS, METHOD OF INSTALLATION & MOUNTING HEIGHTS. ARCHITECTURAL FLOOR PLANS, ELEVATIONS AND DETAILS TAKE PRECEDENCE OVER LOCATIONS SHOWN ON ELECTRICAL DRAWINGS.

GENERAL ELECTRICAL NOTES

- PROVIDE LOCKABLE ENCLOSURES WITH COMMON KEY ON ALL STARTERS AND DISCONNECT SWITCHES
- LOCATED IN PUBLIC AREAS, KEYS SHALL BE HANDED OVER TO OWNER AT END OF PROJECT PROVIDE HOUSEKEEPING PADS FOR ALL FLOOR MOUNTED AND GRADE MOUNTED ELECTRICAL EQUIPMENT. MINIMUM REQUIREMENTS: 100mm (4") HIGH, 4% AIR ENTRAINED, POLYFIBER REINFORCED CONCRETE. 100mm (4") LONGER THAN EQUIPMENT TO BE PLACED ON IT. REFER TO
- UNLESS NOTED OTHERWISE, THE CIRCUITING INDICATED ON THE DRAWINGS IS REPRESENTATIONAL

ARCHITECTURAL/STRUCTURAL/ELECTRICAL DETAIL DRAWINGS FOR TRANSFORMER OR SWITCHGEAR

- CIRCUIT NUMBERS AT DEVICES CORRESPOND TO PANELBOARD BREAKERS (SEE PANELBOARD SCHEDULE). BRANCH CIRCUITS SHALL BE SIZED ACCORDING TO THE CIRCUIT BREAKER RATING AND VOLTAGE DROP REQUIREMENTS, UNLESS INDICATED OTHERWISE ON THE ELECTRICAL EQUIPMENT
- MINIMUM CONDUIT SIZE SHALL BE 21mm (3/4") UNLESS NOTED OTHERWISE.
- CONDUIT AND WIRE SHALL NOT BE INSTALLED BELOW FLOOR SLAB UNLESS INDICATED ON PLAN BY DASHED CONDUIT/LINE.
- EMPTY CONDUIT SHALL BE C/W PULL WIRE AND PLASTIC BUSHINGS.

PADS THAT MAY EXCEED THESE REQUIREMENTS.

ONLY. CONFIRM CIRCUITING REQUIREMENTS ON SITE.

- ALL CONDUCTORS OPERATING AT 50 VOLTS OR GREATER SHALL BE IN RACEWAY. ALL RACEWAY WITHIN THE STRUCTURE ABOVE THE FLOOR SLAB SHALL BE METAL. RACEWAY BELOW THE FLOOR SLAB AND UNDERGROUND RACEWAY OUTSIDE THE STRUCTURE SHALL BE PVC.
- ALL LOW VOLTAGE CABLES OR CONDUCTORS OPERATING AT LESS THAN 50 VOLTS SHALL BE IN METAL RACEWAY WHERE INSTALLED WITHIN WALLS OR INACCESSIBLE SPACES. LOW VOLTAGE CABLES MAY BE RUN IN CABLE TRAY WHERE NOTED. LOW VOLTAGE CABLES MAY BE RUN IN CABLE SUPPORT HOOKS ABOVE ACCESSIBLE CEILINGS WHERE NOTED.
- ALL LOW VOLTAGE CABLES OR CONDUCTORS OPERATING AT LESS THAN 50 VOLTS SHALL BE IN METAL RACEWAY. LOW VOLTAGE CABLES MAY BE RUN IN CABLE TRAY WHERE NOTED.
- ALL RECESSED LIGHTING FIXTURES IN LAY-IN CEILINGS SHALL BE INSTALLED WITH 6' LONG FLEXIBLE
- WHERE CONNECTED TO A 20A. BRANCH CIRCUIT SUPPLYING AN INDIVIDUAL RECEPTACLE (SIMPLEX OR DUPLEX), THE RECEPTACLE SHALL BE RATED AT 20A.
- CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING ALL ELECTRICAL ITEMS SHOWN ON THE DRAWINGS, INCLUDING THE FOLLOWING, UNLESS NOTED OTHERWISE:
- TELEPHONE OUTLETS, DATA OUTLETS, FIRE ALARM DEVICES SHALL CONSIST OF A BACK BOX WITH CONDUIT STUBBED ABOVE THE ACCESSIBLE CEILING. SEE STUB UP DETAIL.VERIFY SIZE OF BACK BOX REQUIRED WITH DEVICE TO BE INSTALLED. LOCATE BACK BOXES 6" FROM ADJACENT POWER RECEPTACLE INTENDED FOR COMPUTER USE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ROUGH-IN ONLY OF THE FOLLOWING ITEMS/DEVICES UNLESS NOTED OTHERWISE:
- TELEPHONE OUTLETS, INFORMATION OUTLETS, FIRE ALARM DEVICES. ROUGH-IN SHALL INCLUDE EMPTY 21mm (3/4") EMPTY CONDUIT COMPLETE WITH BACKBOX TO CORRIDOR ACCESSIBLE CEILING SPACE. VERIFY LOCATIONS AND ROUGH-IN REQUIREMENTS OF ALL OWNER FURNISHED EQUIPMENT PRIOR TO
- REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PHASES OF DEMOLITION AND CONSTRUCTION. COORDINATE WITH GENERAL CONSTRUCTION.
- ALL NEW WIRING SHALL BE CONCEALED WHERE POSSIBLE. UTILIZE CRAWLSPACE AND/OR ACCESSIBLE CEILING SPACE TO RUN NEW WIRING AS REQUIRED AND FISH INTO WALLS/MILLWORK.
- WHERE EXISTING WALLS ARE TO BE OPENED FOR INSTALLATION OF NEW WIRING, COORDINATE WITH GENERAL CONTRACTOR ROUTING OF SAME. ARRANGE AND PAY FOR ALL CUTTING/REPAIR/PATCHING AS
- CIRCUIT BREAKERS SHALL MATCH EXISTING. CONFIRM SHORT CIRCUIT RATING AND TYPE ON SITE,
- UTILIZE SPARE/FREED UP CIRCUITS FROM DEMOLITION AS REQUIRED TO ACCOMODATE THE ADDITIONAL CIRCUITING REQUIREMENTS IN THE RENOVATION.
- PROVIDE NEW TYPEWRITTEN PANEL DIRECTORIES TO ACCOMMODATE UPDATED CIRCUITING. NEW
- BREAKERS IN DISTRIBUTION PANELS SHALL BE LABELLED USING LAMACOIDS DRAWING RECORDS OF THE EXISTING FLOOR PLANMS HAVE BEEN COMPILED FROM INFORMATION SUBMITTED BY THE OWNER AND FROM SITE OBSERVATIONS AS NOTED BY THE CONSULTANT. THE ACCURACY OF THESE DRWAING RECORDS IS LIMITED TO THE EXTENT OF KNOWN CONSTRUCTION
- CONTRACTOR SHALL INSPECT THE CONDITION OF THE EXISTING FEEDERS/WIRING/CONDUIT WITHIN THE AREA OF RENOVATION THAT ARE TO REMAIN, AND INCLUDE IN CONTRACT THE WORK REQUIRED TO
- BRING IT UP TO CODE. INCLUDE TRACING. RE-FEEDING AND PROVIDING NEW SUPPORT AS REQUIRED. CONTRACTOR SHALL ENSURE THAT CONDUIT PENETRATIONS TO TOP OF NEW AND EXISTING DISTRIBUTION EQUIPMENT IS TERMINATED UTILISING SPRINKLER PROOF METHODS. DISCONNECT AND RECONNECT WITH NEW WATERTIGHT CONNECTORS AS REQUIRED. EXISTING SURFACE MOUNTED PANELS AND DISTRIBUTION EQUIPMENT SHALL BE COMPLETE WITH APPROVED SPRINKLER PROOF

ELECTRICAL ABBREVIATIONS LIST

1P	1 POLE (2P, 3P, 4P, ETC.)	DCP	DOMESTIC WATER CIRCULATING PUMP	HRV	HEAT RECOVERY VENTILATION	N.C.	NORMALLY CLOSED	STD	STANDARD
	, , , , ,	DEPT	DEPARTMENT	HTG	HEATING	NEC	NATIONAL ELECTRICAL CODE	SU	SUMP PUMP
Α	AMPERE	DET	DETAIL	HTR	HEATER	NEMA	NATIONAL ELECTRICAL	SURF	SURFACE MOUNTED
AC	ABOVE COUNTER OR AIR	DIA	DIAMETER	HV	HIGH VOLTAGE		MANUFACTURER'S	SW	SWITCH
	CONDITIONER	DISC	DISCONNECT	HVAC	HEATING, VENTILATING AND		ASSOCIATION	SWBD	SWITCHBOARD
ACLG	ABOVE CEILING	DIST	DISTRIBUTION		AIR CONDITIONING	NFDS	NON-FUSED SAFETY	SYM	SYMMETRICAL
ADO	AUTOMATIC DOOR OPENER	DN	DOWN	HWP	HYDRONIC WATER PUMP	111 50	DISCONNECT SWITCH	SYS	SYSTEM
AF	AMP FRAME	DPR	DAMPER		TITBICONIO WATER TOWN	NIC	NOT IN CONTRACT	TEL	TELEPHONE
AFF	ABOVE FINISHED FLOOR	DR	DEDICATED CIRCUIT RECEPTACLE	IC	INTERRUPTING CAPACITY	NL	NIGHT LIGHT		A TELEPHONE/DATA
AFG	ABOVE FINISHED GRADE	DS	SAFETY DISCONNECT SWITCH	IG	ISOLATED GROUND	N.O.	NORMALLY OPEN	TERM	TERMINAL
AFI	ARC FAULT CIRCUIT	DT	DOUBLE THROW	IMC	INTERMEDIATE METAL CONDUIT	NPF	NORMAL POWER FACTOR	TL	TWIST LOCK
ALI	INTERRUPTER	DW	DISHWASHER		INCANDESCENT	NTS	NOT TO SCALE	TR	TAMPER RESISTANT
AHU	AIR HANDLING UNIT	DWG	DRAWING	INT	INTERCOM	INIO	NOT TO SCALE		THERMOSTAT
AL	ALUMINUM	DWG	DRAWING	IPLC	INTERCOMI INTELLIGENT PARKING LOT	ОН	OVERHEAD	TTC	TELEPHONE TERMINAL
ALT	ALTERNATE	EC	ELECTRICAL CONTRACTOR	IPLU	CONTROLLER	OHD	OVERHEAD DOOR	110	CABINET
ALI	AMPERE	ELEC		IR	INFRARED	OLD	OVERHEAD DOOR OVERLOADS	TV	TELEVISION
AMPL	AMPLIFIER	ELEV	ELECTRIC, ELECTRICAL ELEVATOR	IK I/W	INTERLOCK WITH	UL	OVERLOADS	TVTC	
				I/ V V	INTERLOCK WITH	D.A	DUDU IO ADDDECO	IVIC	TELEVISION TERMINAL
ANNUN	ANNUNCIATOR	EM	EMERGENCY	I DOV	IIINOTION BOY	PA	PUBLIC ADDRESS	T\/D	CABINET
	APPROXIMATELY	EMS	ENERGY MANAGEMENT SYSTEM	J-BOX	JUNCTION BOX	PB	PULL BOX OR PUSHBUTTON	TYP	TYPICAL
	AQUASTAT	EMT	ELECTRICAL METALLIC TUBING	10.7	KII OVOLT	PE	PNEUMATIC ELECTRIC		LINIDED COUNTED
ARCH	ARCHITECT, ARCHITECTURAL	EP	ELECTRIC PNEUMATIC	KV	KILOVOLT	PED	PEDESTAL	UC	UNDER COUNTER
AS	AMP SWITCH		EQUIPMENT	KVA	KILOVOLT-AMPERE	PF	POWER FACTOR	UE	UNDERGROUND ELECTRICAL
AT	AMP TRIP	EWC	ELECTRIC WATER COOLER	KVAR	KILOVOLT-AMPERE REACTIVE	PH	PHASE PAGE INDICATING VALVE	UG	UNDERGROUND
ATS	AUTOMATIC TRANSFER SWITCH	EXIST	EXISTING	KW	KILOWATT	PIV	POST INDICATING VALVE	UH	UNIT HEATER
AUTO	AUTOMATIC	EXH	EXHAUST	KWH	KILOWATT HOUR	PNL	PANEL	USB	USB RECEPTACLE
AUX	AUXILIARY	EXP	EXPLOSION PROOF			PP	POWER POLE	UT	UNDERGROUND TELEPHONE
AV	AUDIO VISUAL			LOC	LOCATE OR LOCATION	PR	PAIR/PRINTER	UTIL	UTILITY
AWG	AMERICAN WIRE GAUGE	FA	FIRE ALARM	LT	LIGHT	PRI	PRIMARY	UV	UNIT VENTILATOR OR
		FABP	FIRE ALARM BOOSTER POWER	LTG	LIGHTING	PROJ	PROJECTION		ULTRAVIOLET
BATT	BATTERY		SUPPLY PANEL	LTNG	LIGHTNING	PRV	POWER ROOF VENTILATOR		
BD	BOARD			LV	LOW VOLTAGE	PT	POTENTIAL TRANSFORMER	V	VOLT
BLDG	BUILDING	FCU	FAN COIL UNIT			PVC	POLYVINYL CHLORIDE (CONDUIT)	VSR	VOLTAGE SENSING RELAY
BMS	BUILDING MANAGEMENT SYSTEM	FIXT	FIXTURE	MAX	MAXIMUM	PWR	POWER	VA	VOLT-AMPERES
BRK	BREAKFAST OUTLET	FLR	FLOOR	MAG.S	MAGNETIC STARTER			VDT	VIDEO DISPLAY TERMINAL
			FLUORESCENT	M/C	MOMENTARY CONTACT	QP	QUADPLEX RECEPTACLE	VERT	VERTICAL
С	CONDUIT	FR	REFRIGERATOR	MC	MECHANICAL CONTRACTOR	QUAN	QUANTITY	VFD	VARIABLE FREQUENCY DRIVE
CAB	CABINET	FU	FUSE	MC	MICROWAVE			VOL	VOLUME
CAT	CATALOG	FUDS	FUSED SAFETY DISCONNECT SWITCH	MCB	MAIN CIRCUIT BREAKER	R	RELOCATED		
CATV	CABLE TELEVISION	FZ	FREEZER	MCC	MOTOR CONTROL CENTER	RCPT	RECEPTACLE	W	WATT
CV	CENMAC VACUUM			MDC	MAIN DISTRIBUTION CENTER	REQD	REQUIRED	W/	WITH
CB	CIRCUIT BREAKER	GR	GAS RANGE	MDP	MAIN DISTRIBUTION PANEL	RM	ROOM	WG	WIRE GUARD
	CLOSED CIRCUIT TELEVISION	GA	GAUGE	MEC	MECHANICAL CONTRACTOR	RMC	RIGID METAL CONDUIT	WH	WATER HEATER
CKT	CIRCUIT	GAL	GALLON	MFR	MANUFACTURER	RTU	ROOF TOP UNIT	W/O	WITHOUT
CKTP	COOKTOP	GALV	GALVANIZED	MFS	MAIN FUSED DISCONNECT SWITCH			WOV	WALL OVEN
CLG	CEILING	GC	GENERAL CONTRACTOR	MH	MANHOLE	SC	SURFACE CONDUIT	WP	WEATHERPROOF
COMB	COMBINATION	GEN	GENERATOR	MIC	MICROPHONE	SEC	SECONDARY	WS	WASHER
CMPR	COMPRESSOR	GFI	GROUND FAULT CIRCUIT	MIN	MINIMUM	SEP	SUITE ENTERPHONE PANEL		
CONN	CONNECTION		INTERRUPTER	MISC	MISCELLANEOUS	SER	SERVICE ENTRANCE RATED	XFMR	TRANSFORMER
CONST	CONSTRUCTION	GFP	GROUND FAULT PROTECTOR	MLO	MAIN LUGS ONLY	SHT	SHEET	XFR	TRANSFER
CONT	CONTINUATION OR CONTINUOUS	GND	GROUND	MMS	MANUAL MOTOR STARTER	SIM	SIMILAR		
CONTR	CONTRACTOR	GRS	GALVANIZED RIGID STEEL (CONDUIT)	MOA	MULTIOUTLET ASSEMBLY	S/N	SOLID NEUTRAL	۷	ANGLE
CONV	CONVECTOR		D GYPSUM BOARD	MSP	MOTOR STARTER PANELBOARD	SPEC	SPECIFICATION	@	AT
CP	CIRCULATING PUMP			MSBD	MAIN SWITCHBOARD	SPKR	SPEAKER	Δ	DELTA
CPR	COPIER	HOA	HANDS-OFF-AUTOMATIC SWITCH	MT	MOUNT	SP	SPARE	1	FEET
CR	CONTROLLED RECEPTACLE		HORIZONTAL	MT.C	EMPTY CONDUIT	SR	SURFACE RACEWAY	"	INCHES
CT	CURRENT TRANSFORMER	HP	HORSEPOWER	MTD	MOUNTED	SS	STAINLESS STEEL	#	NUMBER
CTR	CENTER	HPF	HIGH POWER FACTOR	MTS	MANUAL TRANSFER SWITCH	SSW	SELECTOR SWITCH	ø	PHASE
CU	COPPER	HT	HEIGHT	MTR	MOTOR, MOTORIZED	S/S	STOP/START PUSHBUTTONS	CL	CENTER LINE
C/W	COMPLETE WITH			MW	COORDINATED IN MILL WORK	STA	STATION	DI	DI ATE

MW COORDINATED IN MILLWORK

ELECTRICAL SYMBOL NOTES

THE LIGHTING FIXTURE TYPE IS INDICATED BY UPPER CASE LETTERS AND NUMBERS. THE CIRCUIT DESIGNATION IS INDICATED BY LETTERS AND NUMBERS SEPARATED BY DASH. THE SWITCH DESIGNATION IS INDICATED BY A LOWER CASE LETTER. EXAMPLE 1: LIGHTING FIXTURE TYPE "FL01" IS CONNECTED TO PANEL A, CIRCUIT 12 AND CONTROLLED BY SWITCH "b".

EXAMPLE 2: THE FIXTURE TYPE SHOWN AS A NUMERATOR INDICATES ALL LIGHTING FIXTURES IN THE ROOM OR SPACE ARE THE SAME TYPE. THE CIRCUIT NUMBER AND J SWITCH DESIGNATION SHOWN AS A DENOMINATOR INDICATES ALL LIGHTING FIXTURES IN THE ROOM OR SPACE ARE CONNECTED TO THE SAME CIRCUIT, CONTROLLED BY THE SAME LPN-102 SWITCHES, CENTER/OUTBOARD MULTILEVEL SWITCHING.

EXIT LIGHTS. STEM INDICATES WALL MOUNTING. NO STEM INDICATES CEILING MOUNTING. SHADED AREA INDICATES ILLUMINATED FACE(S). ARROW INDICATES DIRECTIONAL ARROW ON ILLUMINATED FACE(S). THE SIGNAGE TYPE IS INDICATED BY UPPER CASE LETTERS AND NUMBERS PRECEDING THE "/". THE ASSOCIATED BATTERY BANK IS INDICATED BY UPPERCASE LETTERS AND NUMBERS FOLLOWING THE "/". THE AC CIRCUIT DESIGNATION IS INDICATED BY A NUMBER. EXAMPLE: THE WALL MOUNTED EXIT LIGHT TYPE "EX1" WITH SINGLE FACE AND DIRECTIONAL ARROW IS CONNECTED TO BATTERY BANK "BU1" AND AC CIRCUIT 14 FROM PANEL A.

DEVICES. THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER. EXAMPLE: SPLIT DUPLEX RECEPTACLE IS CONNECTED TO PANEL A, CIRCUIT 16 AND ONE RECEPTACLE OUTLET IS CONTROLLED BY A SWITCH. THE CONTROL DEVICE DESIGNATION IS INDICATED BY A LOWER CASE LETTER. EXAMPLE:

SINGLE POLE SWITCH "d" TO CONTROL LIGHTING FIXTURES INDICATED BY "d".

SPECIAL CONNECTIONS. THE EQUIPMENT IS INDICATED BY THE TAG. SEE THE MOTOR AND EQUIPMENT SCHEDULE FOR THE LOAD DESCRIPTION AND TYPE OF CONNECTION. THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER(S) ADJACENT A-1,3,5 TO THE SYMBOL. EXAMPLE: EQUIPMENT NO. 1; 3 PHASE CONNECTION TO PANEL A,

TYPE. SEE APPROPRIATE SCHEDULE OR SPECIFICATIONS.

MOTOR CONNECTIONS. THE MOTOR IS INDICATED BY A NUMBER WITHIN OR CHARACTERS ADJACENT TO THE MOTOR SYMBOL. SEE THE MOTOR AND EQUIPMENT A-2,4,6 SCHEDULE FOR THE MOTOR DESCRIPTION AND ELECTRICAL REQUIREMENTS. THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER(S) ADJACENT TO THE SYMBOL. EXAMPLE: MOTOR SF-1; 3 PHASE CONNECTION TO PANEL A, CIRCUITS 2, 4, 6.

SYMBOL NOTATIONS: UPPER CASE LETTERS ADJACENT TO SYMBOLS INDICATE A UNIT

ELECTRIC HEATER CONNECTIONS. THE HEATER TYPE IS INDICATED BY THE ASSOCIATED TAG. SEE THE HEATER SCHEDULE FOR ELECTRICAL REQUIREMENTS. THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER(S) ADJACENT TO THE HEATER. EXAMPLE: ELECTRIC BASEBOARD HEATER TYPE "BB8.05" CONNECTED TO

TRANSFORMERS. THE TRANSFORMER TYPE IS INDICATED BY A NUMBER FOLLOWING THE UPPER CASE LETTER "T". SEE THE TRANSFORMER SCHEDULE OR THE SINGLE LINE DIAGRAM FOR THE TRANSFORMER DESCRIPTION AND REQUIREMENTS. EXAMPLE: TRANSFORMER TYPE "T1". PANELBOARDS. PANELBOARD DOORS MAY BE SHOWN TO INDICATE OPENING SIDE OF

RECESSED PANELBOARDS. SEE PANELBOARD IDENTIFICATION FOR DESIGNATION KEYNOTE. SEE THE KEYED NOTES ON THAT SHEET FOR THE NOTE NUMBER INDICATED. (TYP) INDICATES THAT THE NOTE IS TYPICAL OF THE APPLICATION. CONDUIT SHOWN WITHOUT SLASH MARKS SHALL CONTAIN 2 # 12 CONDUCTORS IN 21mm (3/4") CONDUIT UNLESS SPECIFIC EQUIPMENT REQUIRES A DIFFERENT SIZE.

CONDUIT SHOWN WITH SLASH MARKS SHALL CONTAIN 1 # 12 CONDUCTOR PER SLASH MARK IN 21mm (3/4") CONDUIT UNLESS A CONDUCTOR AND CONDUIT SIZE IS SHOWN ADJACENT TO THE SLASH MARKS. SLASH MARK INDICATORS ARE: SHORT STRAIGHT=PHASE CONDUCTOR, LONG STRAIGHT=NEUTRAL CONDUCTOR, SHORT BENT ENDED=SWITCH LEGS, LONG STRAIGHT WITH A DOT=GROUND CONDUCTOR, CHEVRON=CATEGORY 6, HALF CHEVRON=CATEGORY 3, TWIST=SHIELDED TWISTED PAIR, CONCENTRIC CIRCLE AND DOT=COAX CABLE.

HOME RUN TO BRANCH CIRCUIT PANELBOARD. THE PANELBOARD DESIGNATION IS SHOWN ADJACENT TO THE HOME RUN ARROW AS A NUMERATOR AND THE CIRCUIT DESIGNATION IS SHOWN AS THE DENOMINATOR. CIRCUIT BREAKER SIZES (AMPS/NUMBER OF POLES) ARE SHOWN IN THE PANELBOARD SCHEDULE WITH THE CORRESPONDING PANELBOARD AND CIRCUIT DESIGNATION. EXAMPLE: HOME RUN TO PANELBOARD LPN-102; CIRCUITS 1, 3, 5.

COMMERCIAL OUTLETS:

₹TV2

TV1 – MEDIA OUTLET SHALL CONTAIN ONE (1) RG-6 COAX CABLE. TV2 – MEDIA OUTLET SHALL CONTAIN ONE (1) RG-6 AND ONE (1) CAT-6 CABLES. TV3 – MEDIA OUTLET SHALL CONTAIN ONE (1) RG-6 AND TWO (2) CAT-6 CABLES.

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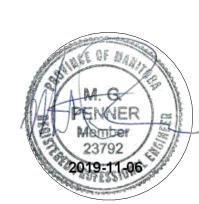
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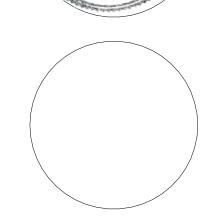
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ELECTRICAL SYMBOLS AND ABBREVIATIONS

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